

TEAM WORK *

By ROBERT BURROWS, M. D., *San Francisco*

ALTHOUGH efforts to alleviate pain during surgical procedure were practiced from time immemorial, it was not until the time of Morton in 1846 that practical anesthesia became a reality. However vague and uncertain the efforts before that time, there is no doubt about the truly wonderful development of anesthesiology since Morton's previous work. Much further progress may be confidently predicted. The list of scientific investigators, chemists, inventors and physicians who have and are devoting their time and efforts to the development of better anesthesia is a long one. Along with progress in methods of eliminating or alleviating pain during surgical procedure has gone the marvelous development of modern surgery. Better anesthesia makes better surgery possible. The dangers attending surgery and anesthesia have been recognized and much has been done to overcome them, and work still goes on to lessen and avoid those that still seem unavoidable. It should be a matter of congratulation that the necessity of education in anesthesiology has been recognized and that courses are now included in most of our medical curricula. Education in this branch of medicine is as necessary and important as in any other, and unless we can appreciate the co-relation of anesthesia with other branches of medicine, our work becomes purely mechanical. The anesthetist must be trained as well as the surgeon, and by the proper training and co-ordination of their efforts good team work may be achieved.

The anesthetist should be much more than simply the one who administers a certain chosen anesthetic. His knowledge of medicine should be such that he would be considered a consultant before, during and after the operation. He should be able to evaluate the physical signs and symptoms, the laboratory findings, etc., so as to form an accurate opinion as to the patient's ability to take an anesthetic and the anesthetic required. It is the anesthetist who watches the general condition of the patient throughout the operation, and by the intelligent estimation of the condition institutes such remedial measures as may be necessary. That he must possess mechanical perfection in administration goes almost without saying, and in this connection we may well be grateful to those within our ranks who have devised mechanical means for the administration of anesthetics with certainty and precision, and these we should be familiar with, never forgetting, however, that a machine is still a machine and that the patient's condition is the final criterion as to whether the anesthetic is being delivered properly. Mechanical perfection is not enough. We must co-ordinate the mechanical part of administration with the known pharmacophysiological reactions of the anesthetic. All patients are not alike, and we must be able to vary our agents, sequences, mixtures, and amounts according to the individual requirement. Also we should be sufficiently conversant with surgical technique to be able to follow the operation and realize the reaction of certain procedures. We cannot always anticipate the

next step, and a word from the surgeon is invariably an aid. Our interest in the patient does not stop with the closing of the wound and the withdrawal of the anesthetic. Having watched the patient as to his condition throughout the operation, we should be able to advise as to post-operative measures, which may be necessary.

I wonder if we are always able to get the patient's viewpoint. We, working in and familiar with hospital atmosphere, may find it difficult to realize the impressions an individual may receive amid these unfamiliar surroundings, not always the most reassuring to the lay mind. Sometimes in our hurry we seem to forget the individuality of the patient and the various factors that may increase his nervous tension, and, all on edge, he is more or less hurried into unconsciousness amid strange sounds and conversation that are anything but soothing.

Do we not lose a great deal in attempts to hurry? During a crowded day, the temptation to do so is almost irresistible. Speed is a requisite in the successful carrying out of our work, and is only retarded by hurry. For instance, it does no good to hurry a patient to the operating room and then have him wait fifteen or twenty minutes before the anesthetic is begun. It does no good to hurry the anesthetic, though the combination of a refractory patient and a rushed impatient surgeon will sometimes make one try it, always to one's regret. It takes about so long to obtain surgical anesthesia, and when we try to rush it we usually find we haven't saved time, but have overdosed the patient. The use of local anesthesia by modern technique and the use of nitrous oxide, either alone or in combination, have shown us the advantages of gentle and unhurried manipulations. We have found, too, that with the more potent anesthetics that a little patience and gentleness will let us obtain the necessary relaxation without unduly saturating the patient.

In all instances proper pre-operative preparation of the patient should be insisted upon. There should be a complete physical examination and urinalysis. Too often we guess the kidneys are normal. Blood examination and blood pressure give us valuable aid in estimating the patient's condition. The advisability of using a preliminary narcotic is still perhaps somewhat of a moot subject, though most of us use one, believing that its advantages far outweigh its disadvantages.

It should be seen to that the patient is adequately protected from cold at all times, most especially during and after the operation. The position of the patient deserves more importance than it usually receives. Slight and simple adjustments can easily make it one of ease to the patient then and after, and by taking the muscles off the stretch, aid greatly in obtaining relaxation.

It should be seen to that our anesthetic apparatus is in perfect order with an adequate supply of anesthetic, and that whatever may be needful is at our finger-tips. Also that the means of stimulation or resuscitation are ready for use at all times and may be applied with the least confusion and delay.

Much in the way of preparation, examination, and various procedures for the patient's safety and com-

* Chairman's Address, Section on Anesthesiology.

fort seem most of the time to be rather small points, but if one of them is omitted at the wrong time the consequences may loom extraordinarily large.

Much benefit is to be gained by conference with the surgeon as to the progress of the case, noting the effect of the anesthetic after the operation as well as during it.

I have tried briefly to indicate various points whereby the anesthetist may co-ordinate his efforts with those of the surgeon, to the end that the patient may more certainly recover. By education, training, and a broader conception of anesthesia we become as skillful in our specialty as the surgeon is in his. Our knowledge of the subject must be that of a physician. It must be recognized that there is a close relationship between anesthesia and surgical procedure. Surgery is a therapeutic measure, done not for the sake of doing an operation, but in the interest of the patient's health. We work with the surgeon, sharing the responsibilities and co-operating with him, to the end that his success in getting the patient well may be assured. Our attempt is to render a service to both patient and surgeon in administering an anesthetic as skillfully and safely as our present knowledge and equipment will permit, co-ordinating our efforts with his toward the recovery of the patient.

2305 Sacramento Street.

More About Tryparsamide in Neurosyphilis—John H. Stokes and Louis F. X. Wilhelm (Archives of Dermatology and Syphilology, May, 1925), after an exhaustive discussion of the benefits and dangers from the use of tryparsamide in combating the most damaging enemy to human health, arrive at the following conclusions among others: 5. "Tryparsamide treatment is superior to other forms of treatment for neurosyphilis on the score of minimal expense, inconvenience and loss of time, and maximal symptomatic gain in mental cases." 6. "Eye complications constitute a definite risk, of which patient and physician should be fully aware. An examination of the eyes by a competent ophthalmologist, with special reference to visual acuity and perimetric fields, must precede the first administration of the drug, and be repeated several times, especially during the first injections of the first course, when complications seem most likely to arise." 10. "Tryparsamide produces a definite Herxheimer-like flare-up of symptoms in mental cases which must be allowed for in making plans for treatment, and may necessitate temporary custodial care of the patient with special nursing, restraint, and precautions against violence and self-injury." 11. "The social values in a given case should be considered with reference to increased sexual activity in certain patients, and with reference to the possibility of the conversion of an unobjectionable and harmless patient into an objectionable and dangerous one." 12. "Tryparsamide appears to have a beneficial effect on patients with resistant tabes, including gastric crises, even though the spinal fluid may be negative." 13. "Our results in the treatment of late paresis by tryparsamide in an institution for the insane are disappointing and do not lead us to continue it in this field. The unfavorable progress of certain unfavorable cases may apparently be hastened by the drug." 14. "We are still disposed to regard tryparsamide, because of the possibility of eye complications, as a last rather than a first therapeutic resort in asymptomatic neurosyphilis. In obvious early paresis, we recommend its use after or in conjunction with other forms of treatment. The experience of other observers has established its unfitness for use in most other aspects of syphilis, owing to its lack of spirillicidal power."

INJURIES TO THE URINARY ORGANS IN RELATION TO INDUSTRIAL ACCIDENTS

By ROBERT V. DAY, M. D., and HARRY W. MARTIN, M. D.,
Los Angeles

A resume of the diagnosis and treatment of injuries to the urinary organs in relation to industry.

Fractured pelvis and ruptured urethra, direct bladder injury, trauma to the spinal cord with secondary bladder involvement, direct injury to the kidneys, and epididymitis, constitute the greatest number of cases for which claims are filed for compensation.

Fractures of one or more vertebrae or injuries to the cord without fracture sometimes produce the so-called spinal cord bladder.

Kidney stone following injuries of the spinal cord is not an uncommon sequel.

The important and essential findings in severe injuries of the kidney are pain in the loin, extending through to the abdomen, fullness, dullness and tenderness in the kidney area, and hematuria.

The most numerous class of patients referred to the urologist for examination and report, on which may be based the question of compensability, are those with epididymitis.

If there is no existing source of bacteria, even though there is an injury to the testicle or epididymis, inflammatory reaction will not result.

DISCUSSION by Granville MacGowan, Los Angeles; Charles P. Mathe, San Francisco; Miley B. Wesson, San Francisco.

TRAUMATIC injuries involving the urogenital organs, as seen in Southern California, have increased apparently several hundred per cent in the past ten years. The development of new industries, particularly shipbuilding and oil production, and the enormous increase in population, together with the popularity of the automobile, are the principal factors causing the increase. Fractured pelvis and ruptured urethra, direct bladder injury, trauma to the spinal cord with secondary bladder involvement, direct injury to the kidneys, and epididymitis constitute the greatest number of cases for which claims are filed for compensation.

If the bulb and membranous urethra are injured, it is usually the result of falling astride some hard, firm object or in connection with fractured pelvis. As a rule, the prostate urethra escapes serious injury, and injury to the pendulous urethra is also rare. When the urethra is injured the symptoms are pain, bleeding, disturbance of urination and tenderness, with tumefaction. The location of the tumefaction, the point of obstruction to the catheter, and the consideration of the mechanical circumstances and causative force attending the accident will usually determine the point of injury and, in a rough way, its extent. The tumefaction is primarily due to extravasation of blood, to effusions, and secondarily to extravasation of urine and inflammatory exudate. Extravasation follows the fascial planes, usually discoverable in the perineum; also the scrotum and penis, and may involve the rectovesical space toward the peritoneum if the prostate urethra is much torn. Altogether, the extent of the extravasation is problematical. It may ascend to the diaphragm retroperitoneally, as in one case observed at a coroner's necropsy. In this case the rectum and peritoneum were torn somewhat. With injuries of the ilium and sacro-iliac joint, immense retroperitoneal hematomas over the psoas muscle may develop. (We saw this once in a case that recovered perfectly, where